An Experiment For Millennial Living: West-End Atlanta Social Housing

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AN EXPERIMENT FOR MILLENNIAL LIVING:

WEST-END ATLANTA SOCIAL HOUSING
An Experience For **Millennial** Living
West-End Atlanta Social Housing

Request for Approval of Thesis Research  
Project Book Presented to:

Michael Carroll  

and to the  
Faculty of the Department of Architecture  
College of Architecture and Construction Management  

by

**Kino Hamilton**  

In partial fulfillment of the requirements for the Degree  

**Bachelor of Architecture**

Kennesaw State University  
Marietta, Georgia  

May 1, 2020
I want to thank my thesis advisor, Michael Carroll for his unconditional support through the entire project. I especially want to thank my family for the support throughout the entire program. This thesis is the final step in my completion of a five-year journey of growth and understanding about myself and the world which I will live and exist in as an individual, academic, and professional level.
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CHAPTER 1
Theorem
Abstract

The number of social housing being built is at its lowest for 70 years and we face a lack of housing that people can afford. As a result many people will live in fear and stress of being forced to move out of their home. Millennials however, will have to endure this problem coming out of college while suffering the dept of student loans. One of the biggest heartbreaks in America was the downfall of public housing throughout the nation. The demolition of public housing to give way to new infrastructures that are more promising and that will generate more money. Why aren’t more social housing being built? Public housing concentrates poverty in particular locations, creating one of the worst social ills in American cities. Concentrated poverty is associated with higher crime, racial segregation, poor educational outcomes, drug abuse, gang violence, and host of other problems. Meanwhile, private market focused policies have proven completely inadequate for ameliorating this problem. My thesis aims to investigate the changing conditions occurring in society today and how architecture has the potential to respond to the conditions of millennial interactions and programmatic needs in a city environment of the future.

Figure 1.1  Techwood Homes (Historic American Buildings Survey, 1933).
Figure 1.2 Millennials To The City
Social Housing & Architecture

One of the biggest heartbreaks in America was the downfall of public housing in throughout the nation. Downfall here means the demolition of Public Housing to give way to new infrastructures that are more promising and that will generate more money. Today, America faces a major shortage of housing affordability and nearly half of all renters are paying 30% of their income on rent or more. The number of households who are renting is near postwar highs. Worse still, public housing concentrates poverty in particular locations, creating one of the worst social ills in American cities. Concentrated poverty is associated with higher crime, racial segregation, poor educational outcomes, drug abuse, gang violence, and a host of other problems. Meanwhile, Private market-focused policies have proven completely inadequate for ameliorating this problem.

“Developers are only building private market housing.”

- Daniel Herriges
Strong Towns

Figure 1.3 Cochran Gardens in St. Louis (Samara T. R, 2008)
Figure 1.4

Foreclosure Throughout USA

(Fore)closing on the American Dream 2019
The project was designed by architect Minoru Yamasaki who would later design New York’s World Trade Center. It was Yamasaki’s first large independent job, performed under supervision and constraints imposed by the federal authorities. The initial proposal provided a mix of high-rise, mid-rise and walk-up buildings. It was acceptable to St. Louis authorities, but exceeded the federal cost limits imposed by the PHA; the agency intervened and imposed a uniform building height at 11 floors. Shortages of materials caused by the Korean War and tensions in the Congress further tightened PHA controls.

The apartments were deliberately small, with undersized kitchen appliances. Skip-stop elevators stopped only at the first, fourth, seventh, and tenth floors, forcing residents to use stairs in an attempt to lessen congestion. The same anchor floors were equipped with large communal corridors, laundry rooms, communal rooms and garbage chutes. Despite federal cost-cutting regulations, Pruitt–Igoe initially cost $36 million, 60% above national average for public housing. Conservatives attributed cost overruns to inflated unionized labor wages and the steamfitters union influence that led to installation of an expensive heating system, overruns on the heating system caused a chain of arbitrary cost cuts in other vital parts of the building.
On December 7, 1955, in a decision by Federal District Judge George H. Moore, St. Louis and the St. Louis housing authority were ordered to stop their practice of segregation in public housing. In 1957, occupancy of Pruitt Igoe peaked at 91%, after which it began to decline. Sources differ on how quickly depopulation occurred; according to Ramroth, vacancy rose to one-third capacity by 1965 according to Newman, after a certain point occupancy never rose above 60%. All authors agree that by the end of the 1960s, Pruitt Igoe was nearly abandoned and had deteriorated into a decaying, dangerous, crime infested neighborhood; its architect lamented: “I never thought people were that destructive”.

The Pruitt Igoe housing project was one of the first demolitions of modernist architecture; postmodern architectural historian Charles Jencks called its destruction “the day Modern architecture died.” Its failure is often seen as a direct indictment of the society-changing aspirations of the International school of architecture. Jencks used Pruitt–Igoe as an example of modernists’ intentions running contrary to real-world social development, though others argue that location, population density, cost constraints, and even specific number of floors were imposed by the federal and state authorities and therefore the failure of the project cannot be attributed entirely to architectural factors.
Who Are Millennials?

The millennial generation is defined by the US Census Bureau as individuals born between 1982 and 2000, making them between the ages of 18 and 36. They are the largest generation in the U.S with a population over 83 million. This makes them a formidable market concern for every major industry in the US. Many industries, coming to a realization, have begun to study and shift their marketing, products and services to better suit the millennial generation.

Defining the general demographics of their generation begins to give us an understanding of just how much of an impact this generation could have on industries and culture. Looking at ways they are similar and dissimilar from other generations will help us understand why they should be paid greater attention. It is important then to acknowledge common stereotypes of millennials.

Education

Millennials are also the most educated generation, with 31% having college degree. While their high level of education has increased their future earnings potential, it has not come without consequence. In 2014 they held a record amount of almost $1.2 trillion dollars in student loan debt. With 43 million people with student loan debt in 2014 that averages out to $27,000 per student. The ramifications of this level of student loan debt as millennials are entering the work force is having a wide spread ramifications on how and where they are living.

Throughout their childhoods and adolescence many millennials were told that in order to get a good job they would have to go to college and get a degree. This emphasis on higher education, while statistically is shown to increase earnings potential over a lifetime has not yet panned out the way for many millennials. Even though they are the highest educated generation, they also have the highest rates of unemployment or underemployment. 17% of millennials who want to work are unemployed or only working a part-time, but would prefer a full-time job. Their higher education is also not immediately returning higher earnings as they are earning significantly less than other generations. Nearly 4 in 10 millennials earn less than 36,000 a year.
What Are The Values of Millennials?

Technology
The millennials have experienced first-hand the rise of technology and how it has revolutionized everyday life. From the beginning of Internet and cell phone use in the 1990s to cloud sharing and virtual workspaces today, more than any other factor technology has radically changed how the millennials perceive the world.

Social Media
Along with the widespread use of the Internet social media quickly rose to one of the Internet’s primary uses. As the millennials have grown up with access to social media it is no surprise that they are the most likely demographic to use social media daily.

Diversity
The racial and ethnic diversity of the millennials’ generation is perhaps one of the more important statistics that sets them apart from previous generations.

Experience
The millennials preference for experience is perhaps one of the most influential traits when it comes to choice of lifestyle. The origination of preference for experiences can be tied to their aversion toward Suburbanism and the consumer culture it promotes.

Mobility
As a demographic they are considerably more transient than other generations although this did not fully reveal itself until around 2015 as the post-recession economy finally began regaining its momentum. Being greatly disengaged from traditional institutions or traditions has increased their willingness to move, often times until they settle down after establishing themselves in their career.

Affordability
Just with other generations, affordability is a primary concern for millennials. As they have become adults in the midst of a major financial crisis, housing collapse and subsequent unemployment affordability is a constant concern for millennials.

Figure 1.7 Millennials Go To College (Neil Howe and William Strauss, 2003)
### Millennials & The City

#### Where Millennials Most Likely to Buy In 2019?

1. Atlanta, GA  
   Population share of older millennials (24 to 35 years old): 13.6%

2. Pittsburgh, PA  
   Population share of older millennials: 12.3%

3. Memphis, TN  
   Population share of older millennials: 13.5%

4. Boston, MA  
   Population share of older millennials: 13.8%

5. Austin, TX  
   Population share of older millennials: 16.5%

6. San Diego, CA  
   Population share of older millennials: 15.5%

7. Seattle, WA  
   Population share of older millennials: 14.9%

8. Houston, TX  
   Population share of older millennials: 14.4%

9. Denver, CO  
   Population share of older millennials: 14.9%

10. Charlotte, NC  
    Population share of older millennials: 15.1%

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*Figure 1.8. Realtor.com (Nielsen Pop-Facts, 2015)
Why Millennials Prefer The City?

On a large scale, the Millennial values mobility, convenience, and options for transportation, which is why many are moving from urban centers for better chances of employment and enjoyment during and after the process of a college education. A large number of the Millennial generation moving into denser cities are college educated or beginning their studies in the city; this is the demographic currently, Gen Y.1 and Y.2, which are setting trends for cities such as using Uber or Lyft. Generation Y.2 is beginning to move back into suburban areas seeking more space for the potential to start a family but depending on their area and city of study.

Millenials value the cultural diversity that cities foster from culture to the landscape which is offered. There is an ingrained relationship between the city, transportation, and culture which defines urban mobility, rationality, and social identity in cities. There is also growing concern for their movement of Millennials and other into cities which are driving forces of gentrification and historical areas of cities, these growing concerns have to lead to an emphasized important to the social sustainability of cities and their population. The two main dimensions of social sustainability are equitable access and the sustainability of the community, which are growing concerns for members of Gen Y and Z looking to grow up in the cities post graduation.

Overall, there is a certain level of dissatisfaction and frustration with the current system of living in higher density cities as economic, urban, social, and architecture considerations are driving a sustainable movement both for their environment but the larger community of the city. Outlined by these studies, it is important to consider the urban capital of a city and its members and how these generations of people interact at a level which is sustainable on all levels to all groups of people, not just the college educated who wish to move into cities.
Local Spotlight - Atlanta Street Art
Fulton County

Fulton County is a county in the north-central portion of the U.S. state of Georgia. As of 2018 estimates, the population was 498,044 making it the state's most populous county and its only one with half a million inhabitants. Its county seat is Atlanta, the state capital. Approximately 90% of the City of Atlanta is located within Fulton County the other 10% lies within DeKalb County. Fulton County is the principal county of the Atlanta metropolitan area.

Figure 1.9 Map of United States
Atlanta West-End Neighborhoods

West End is a neighborhood in Atlanta, Georgia with a population of 4,300. West End is in Fulton County. Living in West End offers residents an urban suburban mix feel and most residents rent their homes. In West End there are a lot of parks. Many families and young professionals live in West End and residents tend to be liberal.

**Figure 1.10 West-End Neighborhoods**

- **Population**: 4,300
- **Median Home Value**: $188,851
- **Median Rent**: $949
- **Household Income**: $35,192
Can **Social Housing** Exist In An Urban City?

Cities are growing at an unprecedented rate, presenting an incredible opportunity for the development of local economies. However, residents need good, affordable housing to live in. Research has shown that stable and affordable housing has a positive impact on families and communities.

**Key findings of positive impacts Affordable Housing have on communities:**

1. **Affordable Housing & Housing Stability**
   Nearly 19 million U.S. households pay over half their income on housing, and hundreds of thousands more have no home at all. Access to decent, affordable housing will provide critical stability for the residences and lower the risk that vulnerable them to become homeless.

2. **Energy Efficiency Improvements**
   Energy efficient improvements reduce the long-term operating cost of subsidized multifamily buildings. This helps to stabilize the portfolio of affordable housing providers, preserve the affordable rental housing stock and protect tenants from instability.

3. **Housing Stability & Education**
   Housing instability can seriously jeopardize children's performances and success in school, and contribute to long-lasting achievement gaps. Quality affordable housing helps create a stable environment for children, contributing to improved educational outcomes.

Figure 1.11 Abdessamed Azarfane, Morocco
Social Housing & Household Stability

One in four renters pay more than 50% of their income on rent, leaving less money for other important expenses like transportation, food, health care or education.

Forms of Housing Instability

- Homelessness
- High Housing Cost Relative to Income
- Overcrowding
- Poor Housing Quality
- Multiple Moves

Are Associated With...

**Health Risk for Children**
- General Poor Health
- Asthma
- Low Weight
- Developmental Delays
- Increased Lifetime Risk of Depression

**Health Risk for Adults**
- Reduced Access to Care
- Postponing Needed Health Care
- Mental Distress
- Difficulty Sleeping
- Incidents of Depression

Figure 1.12 Downside of Household Stability
Housing **Affordability** & Economic Security

A worker can afford an **average two-bedroom apartment** earning...

$18.79 per hour

working **40** hours per week

But the **average renter** earns only...

$14.32 per hour

and would need **52** hours per week

And a **minimum wage worker** earns just...

$7.25 per hour

and would need **104** hours per week

*Figure 1.13 Average workers income in Atlanta*
CHAPTER 2
CASE STUDIES
The building had to be porous enough to allow each unit to expand within its structure.

Architecture

The Quinta Monroy’s aim was to keep the families’ social and economic networks, which they had created close to the center city, instead of evicting the families to the periphery. They wanted the families to live in houses able to achieve a middle-class standard instead of condemning them to an everlasting social housing one. Aravena have identified a set of design conditions through which a housing unit can increase its value over time; this without having to increase the amount of money of the current subsidy.

Final Concept

In the end, when the given money is enough for just half of the house, Aravena was able to make the half that a family individually will never be able to achieve on its own, no matter how much money, energy or time they spend. That is how Aravena expected to contribute using architectural tools, to non-architectural questions, in this case, how to overcome poverty.


80 Viviendas De Proteccion

Architect: Toni Gironès
Location: SALOU, SPAIN

Architecture

The project 80 Viviendas De Proteccion Official proposes a pattern with various intervention scales, with a social housing program which develops its relationship proprieties, by building an architecture thought as a support and close to users’ reality.

Final Concept

The proposal is built with simple, economic and low-maintenance materials and a careful disposition and execution. Materials are shown the way they are and respond to any specific functions, being able to evolve synchronically as time goes by, according to architectural conditions and accepting that life power, the unexpected that becomes habitual, prevails more than any expected planning.

Figure 2.5 80 Viviendas De Protección Oficial En Salou / Toni Gironès 22 May 2014. ArchDaily

Units Characteristic

Yanina and David have lived together for a year and they usually host many friends and family. They like to surf in the waves of Cambrils. Living with them a spaniel dog named Jonasico.

Shading System

The shading mechanism consist of small gap holes that canalize air, light and controls the view. It acts as an element that contemplates its own condition regarding space, light and temperature.

Figure 2.6 80 Viviendas De Protección Oficial En Salou / Toni Gironès 22 May 2014. ArchDaily
Figure 2.7 80 Viviendas De Protección Oficial En Salou / Toni Gironès 22 May 2014. ArchDaily
Carmel Place

Architect: nArchitects
Location: Manhattan, NY

Programming

Shared amenities will include a gym at ground floor level, a small lounge, den, community room and public roof terrace, bicycle storage, tenant storage room and separate storage lockers dispersed throughout the building, and a small garden. Placement of various shared amenities throughout the building strategically encourages residents to interact with their neighbors throughout their daily routine. Micro-living means living beyond the four walls of your apartment.

Units Design

The interior of the units were designed to create a sense of spaciousness, comfort and flexibility. The architect and developer team prioritized providing residents with as much volume, light, air and views as possible. Additional large storage space is located in the added height above the bathrooms, which, combined with an efficiently designed kitchen, provides residents with a highly functional and flexible interior. Ranging from 250 to 370 square feet net, are affordable for low and middle income households.
Figure 2.10 Carmel Place Field Condition, Iwan Baan, 2014
CHAPTER 3
AMENITIES-PRO-
The challenge HQ Architects faced was to design and build a students’ village in a short period of 4 months. There was a big challenge; to create a valuable urban and communal project, that will support its physical and social environment, in the existing economic political situation.

The shipping container village is comprised of three separate structures, each rising three stories.

A shelter unit between them, not only serving as a work space, but functions both as a constructive element, and as a necessary part of each apartment in this tensioned area.

Student Village of Israel idea was to make a sustainable social change in Israel’s periphery, Negev and Galilee. “If we could bring university students to the periphery, to places people don’t want to live, they can revitalize these places and show there’s a reason to stay.” - Effy Rubin
Housing Complex, Garden

Architect: Dattner Architects
Location: Brooklyn, New

The project, which is part of a wider initiative to create more affordable housing in Brooklyn, will see three buildings demolished on the 102,000sq ft (9,500sq m) site, as well as the redevelopment of a former hospital building. A total of 266 residential units will be created, catering in part for older adults and disabled veterans, while on-site amenities and programmes will provide opportunities for recreation and socialism.

Outdoor seating gives the opportunity to lounge and enjoy the outdoor.

Outdoor amenities will include a community garden, kitchens, exercise equipment, and children’s play areas. Amenity areas within will include teaching kitchens, laundry rooms, bike storage, resident lounges, and a nurse’s station that will provide on-site services and counseling space. A 7,000-square-foot PACE Center will also provide specialized care for elderly residents and members of the community.

Figure 3.2 Courtesy of SYNOESIS and Dattner Architects, 2019
The Foundery, Duke University

Architect: HQ Architects
Location: Sderot, Israel

At Duke University, a new 7,600-sf maker space is generating substantial excitement among students and faculty alike. An older building, Gross Hall, was completely renovated. Prior to the renovation, the basement level housed air handlers and other outdated utility equipment; with its expansive floor-plate and 35-foot ceiling freed up, the design team was able, over the course of a year, to create a comprehensive, co-curricular space for projects of all kinds.

Figure 3.3 Courtesy of Mark Herboth Photography, LLC, for Lord Aeck Sargent, 2016
Ledeer Daycare Center

Architect: Credohus
Location: GUANGZHOU, CHINA

In contemporary Chinese cities, a public space that allows parents to rest assured that their children are playing has become a scarce resource. Ledeer, as a community-based child care institution, hopes to create a space in the community for children of different ages to play together, so that children can receive professional care, so as to give parents necessary personal time.

Credohus designed the children's activity space as a public street, connecting functional rooms and large spaces placed at the end of the site. A number of small wood houses of various sizes and shapes are arranged along the street to form a continuous boundary that surrounds the entire space, resembling a small village. In order to achieve the balance between protection and connection, the wooden houses are designed to be semi-open, surrounded by walls to form corners.
CHAPTER 4
SITE STUDY
With unmatched accessibility and positioning near Oakland City Station / Adair Park neighborhoods, and developing points of interest, it’s in a great location, situated on the Westside Trail with plenty of green space, parks and proximity to the Beltline. This site is a great location for upcoming Millennials.

Although West-End is one of the oldest part of Downtown Atlanta, there are a few bright spots due to a wave of investments to rejuvenate the area. The development is transitioning back to its past, as it relates to the generating of community value and revitalization. Examples are shown in figure 4.1 to bring in new residents, especially young professionals, looking for urban lifestyle.
Figure 4.1 Surrounding Points of Interest

1. Wild Heaven West
2. Vgood @ Monday
3. Boxcar at Hop City
4. Bearings Bike
5. Lee Food Mart
6. Apache Cafe
7. Bonfire
Brookline St SW

Brookline street is a single family neighborhood that sits on the beltline and the value of these homes are more than the other neighborhoods, because of this convenience. This street also runs to the historic park Adair park that residents can go to and enjoy recreation.
Figure 4.2 Millennial Characteristics

1024 Brookline Ave SW
Value: $283,955
Year Built: 1928
Lot: 6,098
Beds: 3
Bathrooms: 2

706 Brookline St SW
Value: $414,635
Year Built: 1920
Lot: 10,011
Beds: 3
Bathrooms: 2 1/2
Murphy Ave SW

Murphy Ave SW is the only main street that borders the site. It is a historical street that dates back to the 1800s where the district evolved into an independent political entity closely linked by rail and roads to its neighbor Atlanta. There is mostly industrial sites that sits on this street and few of them are abandoned.
West-End Marta

West End is on the Red and Gold Lines. There is a surface parking lot with 537 spaces. This station has local MARTA bus service as well as the Atlanta University Center Shuttle serving Clark Atlanta University, Morehouse and Spelman Colleges. Shopping, residential housing and historic tourist destinations surround the station.

Oakland City Transit Station

Oakland City is on the Red and Gold Lines. There is a surface parking lot with 337 spaces. This station has local MARTA bus service. The station has a main entrance from Campbellton Road and a pedestrian tunnel at the Murphy Avenue entrance. Residential housing and neighborhood parks surround the station.
Donelly Ave SW goes through a neighborhood near the site that was historically a white working class neighborhood until around 1960. The homes on this street are single family style and are older models built between the years 1940-1960. The average value home on this street is $140,000.
Figure 4.4 Millennial Characteristics

1338 Donelly Ave
SW
Value: $132,294
Year Built: 1950
Lot: 6,011
Beds: 3
Bathrooms: 2

839 Oakland Dr
SW
Value: $111,651
Year Built: 1950
Lot: 8,411
Beds: 3
Bathrooms: 2

Figure 4.4 Millennial Characteristics
CHAPTER 5
DESIGN PHASE
Units

The units of this model fit the requirements of transport and programmatic additions from being attached to the building. The main focus is to give space needed to the resident which can transform and adapt depending on what is needed for the occupant. The units shape the program of the building and sizing for the structure and is the driving factor of how things are arranged. The units are meant to be customizable with varying unit layouts based on the needs and wants of the potential occupant. Future program can be added in between units if the occupant is in need for it.

575 sqft. Mary is a single parent with two kids of ages 3 and 4. During the day Mary leaves for work and the kids goes to daycare. The children share the second bedroom and has a pullout play area just outside there room.

450 sqft. James and John has been living together for a year since college and both are trying to find their way in the city. James is employed and works at a firm, while John is an entrepreneur spends most of his time working from home.

375 sqft. Mike is a newly graduate who is an aspiring blogger. He works at home each day creating new media content in his studio room.
Units

Based on the needs of the resident or client, the layout can be changed and adjusted from adding or subtracting space and program. Urban living limits potential program based on location and cost but having the units constructed as prefabricated elements, the cost can be cut down and the desired program can be achieved. The idea for the unit is to be something to take with you, you can rent, lease or purchase in you ‘20s and move it to the best spots in town for work or play. Later on, you can add or change the program within to reflect changing needs of both the space that you live in and live, you might have a significant other living with you or have a roommate or want to have a patio to sit out on as life begins to slow down. The unit is meant to work and adapt for the owner supported by the rest of the system.

Figure 5.1 Unit iso

Dashed line show represents where the unit is divided to be placed on a flatbed trailer. A flatbed is 25’ max length and 8’6” max width. The unit is 25’ length and will be divide 8’6” to fit a portion onto the trailer. The other portion will be stacked on top and will not exceed the max legal height of 48”.

1. Hanger Closet
2. Kitchen
3. Dinner Table
4. Couch
5. Closet
6. Full Size Bed
7. Lamp
8. Dresser
9. Bathroom
10. Computer Desk
11. Exterior Balcony

Figure 5.2 Unit Amenity Diagram
Units

The Units of this model requires transportation to the site after it has been prefabricated off site. Typical to get to the site the units will have to be transported with a flatbed truck. Although there are flatbed sizes that can take on the full length of the units, the maximum legal width of a flatbed is 8’6” and the max width of the units is 23’. To solve this problem the units will have to be made in portions to then be assembled upon arrival on site.

15’ wide unit split into two pieces to fit on 8’6” wide flatbed

18’ wide unit split into three pieces to fit on 8’6” wide flatbed

23’ wide unit split into wide pieces to fit on 8’6” wide flatbed
How The Units Work

- **375 square foot unit** is designed for a single occupant who may be transitioning out of college or moving into the city to be around a population similar in age.
  - This unit is quite small and occupies one person comfortably and fits the needs for the specific individual.
  - 50% of the unit is built by the state until the occupant has accumulated sufficient funds for added rooms.
  - As a low cost the occupant can add an additional room to their unit.
  - At a low cost the occupant can add an additional room to their unit.

- **450 square foot unit** is designed to be a roommate and or couple/married occupancy.
  - This unit is larger that occupy two people comfortably and fits the needs for the specific occupant.
  - At a low cost the occupancy can add an additional room to their unit.

- **575 square foot unit** is designed for a single family, who already have children. This includes single parent with kids also.
  - This unit is the largest that occupy a single family people comfortably and fits the needs for the specific occupant.
  - Keep in mind the smaller units can be upgraded to a larger one if the single occupant plans on getting married or finding a roommate.
  - At a low cost the occupancy can add an additional room to their unit.

The additional rooms added gives the residence the opportunity to rent out their spare rooms to visiting guest in the city. Like Air bnb the state will receive 3% commission of every booking from the host and between 6% and 12% from the guest. All other funds will then go to the occupant. This phase will allow the residence to experience the business aspect of entrepreneurship.

Figure 5.1 Unit Phases
**Structure**

The structure is a standardized based on the dimensions of the unit, comprised of steel I-beam its meant to be assembled and disassembled in association to the buildings life cycle and to also fit the necessary equipment to move the units. The structure is tied into the building core and uses it as a counterweight, while the beams are oversized because the loads on the structure will change as units are moved in and out of the structure in no particular order. The structure and units are bolted together with space on top and one each side so the unit does not rest to rub on any part of the structure with room for any servicing as well as during installation and removal.

The structure grid acts as the defining form of the building and is the support element for the units. The grid structure is spaced for the placement of unit size. The 46 feet void can fit two 575sft units side by side, the 36 feet void can fit two 450sft units side by side and the 30 feet void can fit two 375sft units side by side. The 8 feet void is left for future unit programming such as additional rooms or storages.
Industrial Materials

Figure 5.4 Primary Material Used

- Rusted Steel I-beam
- Perforated Metal
- Steel Rebar
- Galvanized Metal-sheet
The first Level and site focuses on what can be maximized on site, an open garden area not quite given to the most private programming on site because, you can access the site from both street level and the beltline. Plenty of space is provided to move in and out for unit installation and removal. Parking is also provided for each residence on site.
Second Level

The units on the second level define how the units are accessed through the egress and corridors. The need for vertical shaft which the units can be moved in and out of the structure grid, creating a good way to space out units but allow natural light into the corridors when exiting the units.
Figure 5.5 Outdoor Amenities

- Photovoltaics
- Parking
- Garden/Green
- Ramp to Beltline
Figure 5.6 Outdoor Site Circulation
North Section
Bibliography

Chapter 1

1. Darius Sollohub "Millennials in Architecture, Generations, Disruption, and the Legacy of a Profession"
2. Peter Gowan & Ryan Cooper "Social Housing in The United States, People's Policy Project

Figure 1.1. https://www.loc.gov/pictures/item/ga0662.photos.331974p/resource/
Figure 1.3. https://www.thepolisblog.org/2014/01/housing-demolition-and-right-to-place.html
Figure 1.4. https://origins.osu.edu/article/foreclosing-american-dream
Figure 1.5. http://www.milwaukeeindependent.com/syndicated/pruitt-igoe-the-failed-public-housing-project-and-symbol-of-a-dysfunctional-urban-abyss/
Figure 1.6. https://apeopleschoice.com/filing-for-bankruptcy-to-discharge-student-loans/
Figure 1.8. http://www.executivelocationinc.com/new-blog/2015/12/11/where-millennials-are-buying
Figure 1.11. https://urbannext.net/bayt-a-different-view-on-social-housing-in-morocco/
Figure 1.13. https://www.payscale.com/research/US/Location=Atlanta-GA/Salary

Chapter 2

Figure 2.1. https://www.archdaily.com/10775/quinta-monroy-elemental/57098ac5e58ece29ac000149-quinta-monroy-elemental-planta-tercer-nivel?next_project=no
Figure 2.2. https://www.archdaily.com/10775/quinta-monroy-elemental
Figure 2.3. https://www.archdaily.com/10775/quinta-monroy-elemental
Figure 2.4. https://www.archdaily.com/10775/quinta-monroy-elemental
Figure 2.5. https://www.archdaily.com/507784/80-viviendas-de-proteccion-oficial-en-salou-toni-girones
Figure 2.6. https://www.archdaily.com/507784/80-viviendas-de-proteccion-oficial-en-salou-toni-girones
Figure 2.7. https://www.archdaily.com/507784/80-viviendas-de-proteccion-oficial-en-salou-toni-girones
Figure 2.8. http://narchitects.com/work/carmel-place/
Figure 2.9 http://narchitects.com/work/carmel-place/
Figure 2.10 http://narchitects.com/work/carmel-place/
Chapter 3

https://metatl.com/location/#foobox-1/0/Metropolitan_Map-1.jpg
https://pratt.duke.edu/about/news/foundry-opens-student-innovation
https://www.archdaily.com/935465/ledeer-daycare-center-credohus